

CLAIM AMENDMENTS

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10/13/05

IN THE CLAIMS

This listing of the claims will replace all prior versions, and listing, of claims in the application or previous response to office action:

1. (Currently Amended) A semiconductor device comprising:
  - an active region of a first conductivity type including a two transistor structure comprising a stripe shaped drain region and a first stripe shaped source region arranged on one side of the stripe shaped drain region and a second stripe shaped source region arranged on the opposite side of the stripe shaped drain region, wherein the drain and the first and second source each define a first and second stripe shaped channel, a first and second gate being arranged above said first and second channel,
  - a ring shaped region of the first conductivity type extending from a surface of the active region into the active region, wherein the ring shaped structure partially overlaps the first and second stripe shaped source region and, thus, substantially surrounds the transistor structure.
2. (Previously Presented) The device as in claim 1, wherein the transistor structure further comprises a first and second sinker structure of said first conductivity type arranged substantially along said first and second source region, respectively reaching from the surface of the active area next to the first and second source region to the bottom of the active area.
3. (Previously Presented) The device as in claim 2, wherein the p ring is less doped than the first or second sinker structure.
4. (Original) The device as in claim 2, wherein the drain region comprises a lightly doped drain region.
5. (Original) The device as in claim 4, further comprising a metal layer on the backside of the semiconductor device.

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6. (Canceled)
7. (Previously Presented) The device as in claim 1, wherein the drain region comprises a lightly doped drain region.
8. (Previously Presented) The device as in claim 1, further comprising a metal layer on the backside of the semiconductor device.
9. (Currently Amended) The device as in claim 1, wherein the ring shaped region is less doped than the sinker structure.
10. (Original) The device as in claim 1, wherein the ring is doped in the range of  $10^{14}$ - $10^{15}/\text{cm}^2$ .
11. (Canceled)
12. (Currently Amended) The device as in claim 11, wherein the active area comprises a substrate and an epitaxial layer on top of said substrate.
13. (Previously Presented) The device as in claim 1, wherein the first conductivity type is the p type.
14. (Canceled)
15. (Original) The device as in claim 10 wherein boron is used as a dopant.
16. (Original) The device as in claim 1, wherein the ring has a rectangular, circular, oval, or polygon shape.
17. (Original) The device as in claim 1, wherein the ring comprises at least one gap that does not substantially influence an insulating function of the ring.

18. (Currently Amended) A semiconductor device comprising:
- an active region of a first conductivity type including a two transistor structure, wherein the two transistor structure comprises, a common drain region of a second type, a first source region of the second type arranged along one side of the common drain region, a second source region of the second type arranged on the respective opposite side of the common drain region, first and second channels formed between said first source region and said common drain region and between said second source region and said common drain region, and first and second gates being arranged above said first and second channel, respectively, and
  - a ring shaped region of the first conductivity type extending from a surface of the active region into the active region thereby partially overlapping said first and second source region and surrounding the transistor structure.

19. (Previously Presented) The device as in claim 18, further comprising first and second sinker structures of said first conductivity type arranged substantially along said first and second source regions, respectively reaching from the surface of the active area next to the source region to the bottom of the active area.

20 (Canceled)

21. (Original) The device as in claim 18, wherein the drain region comprises a lightly doped drain region.

22. (Original) The device as in claim 19, further comprising a metal layer on the backside of the semiconductor device.

23. (Previously Presented) The device as in claim 19, wherein the ring is less doped than the first and second sinker structures.

24. (Original) The device as in claim 18, wherein the ring is doped in the range of  $10^{14}$ - $10^{15}/cm^2$ .

25. (Canceled)
26. (Currently Amended) The device as in claim 2518, wherein the active area comprises a substrate and an epitaxial layer on top of said substrate.
27. (Previously Presented) The device as in claim 18, wherein the first conductivity type is the p type.
28. (Canceled)
29. (Original) The device as in claim 24, wherein boron is used as a dopant.
30. (Original) The device as in claim 18, wherein the ring has a rectangular, circular, oval, polygon, or partially open shape.
31. (Original) The device as in claim 18, wherein the ring comprises at least one gap that does not substantially influence an insulating function of the ring.
32. (Currently Amended) A method of manufacturing a semiconductor device comprising the steps of:
  - forming an active region of a first conductivity type within a semiconductor material;
  - forming a transistor structure comprising a stripe shaped drain region and a first stripe shaped source region arranged on one side of the stripe shaped drain region and a second stripe shaped source region arranged on the opposite side of the stripe shaped drain region, wherein the drain and the first and second source each define a first and second stripe shaped channel, respectively, a first and second gate being arranged above said first and second channel, respectively, and
  - forming a ring shaped region of the first conductivity type extending from a surface of the active region into the active region, wherein the ring shaped structure partially overlaps the first and second stripe shaped source regions and, thus, surrounds the transistor structure.

33. (Previously Presented) The method as in claim 32, wherein the step of forming a transistor structure comprises the step of forming a sinker structure of said first conductivity type arranged substantially along said source region reaching from the surface of the active area next to the source region to the bottom of the active area.

34. (Canceled)

35. (Original) The method as in claim 32, wherein the drain region is formed in such a way that it comprises a lightly doped drain region.

36. (Original) The method as in claim 33, further comprising the step of arranging a metal layer on the backside of the semiconductor device.

37. (Original) The device as in claim 32, wherein the step of forming the ring includes the step of doping the ring less than the sinker structure.

38. (Original) The method as in claim 32, wherein the ring is doped in the range of  $10^{14}$ - $10^{15}/cm^2$ .

39. (Canceled)

40. (Canceled)

41. (Original) The method as in claim 32, wherein boron is used as a dopant.

42. (Original) The method as in claim 32, wherein the ring has a rectangular, circular, oval, polygon, or partially open shape.